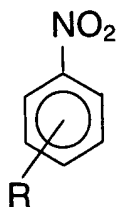


We claim:

1. A process for the production of *ortho*-aminophenols from nitroarenes using a biocatalyst consisting of a nitroreductase enzyme that initially reduces said nitroarene to the corresponding hydroxylaminoarene and a mutase enzyme that converts said hydroxylaminoarene to said *ortho*-aminophenol, and recovering a fraction containing said *ortho*-aminophenol.
2. The process of claim 1 using whole cells which provide said enzymes.
3. The process of claim 1 wherein said enzymes are partially purified.
4. The process of claim 1 wherein said enzymes are expressed from cloned genes.
5. The process of claim 1 wherein said nitroarene has the formula



wherein R is selected from the group consisting of -H, -OH, -COOH, -C_nH_{2n+1}, -C₆H₅, -X, -CX₃, -CHO, -OC_nH_{2n+1}, and -O-C₆H₅, wherein n ranges from 1 to 6 and wherein X is F, Cl, Br or I.

6. The process of claim 2 wherein said cells are *Pseudomonas pseudoalcaligenes* strain JS45.
7. The process of claim 6 wherein said enzymes are partially purified.
8. A process for the production of *ortho*-aminophenols from nitroarenes which comprises transforming said nitroarene to the corresponding hydroxylaminoarene with a metal catalyst and transforming said hydroxylaminoarene to said *ortho*-aminophenol using a biocatalyst consisting essentially of a mutase enzyme that converts said

hydroxylaminoarene to said *ortho*-aminophenol, and recovering a fraction containing said *ortho*-aminophenol.

9. The process of claim 8 wherein said metal is zinc.

10. The proces of claim 8 wherein said mutase enzyme is HabA expressed in
5 recombinant bacteria.

11. The proces of claim 8 wherein said mutase enzyme is HabB expressed in recombinant bacteria.

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